SEQUENCE LISTING

5
<110> Conner, Timothy W.
   Dubois, Patrice
   Malven, Marianne
   Masucci, James D.

10
<120> PLANT REGULATORY SEQUENCES FOR SELECTIVE CONTROL
   OF GENE EXPRESSION

15   <130> 38-21(15678)B promoters

<140> n/a
<141> 2001-05-01

20   <150> US 60/201,255
<151> 2000-05-01

<160> 98

25   <170> PatentIn Ver. 2.1

<210> 1
<211> 22
<212> DNA
30   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: adaptor
   sequence
35
<400> 1
gtaatacgac tcactatagg gc   22

40   <210> 2
<211> 19
<212> DNA
<213> Artificial Sequence

45   <220>

<223> Description of Artificial Sequence: adaptor
      sequence

<400> 2

5   actatagggc acgcgtggt   19

<210> 3
<211> 30
10   <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: adaptor
15   sequence

<400> 3
aggggcaagct tggtcgacgg cccgggctgg   30

20

<210> 4
<211> 17
<212> DNA
<213> Artificial Sequence
25

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

30   <400> 4
ctgacggagg cgctacg   17

<210> 5
35   <211> 17
<212> DNA
<213> Artificial Sequence

<220>
40   <223> Description of Artificial Sequence: fully
      synthesized primer

<400> 5
gttgaagtcg atgcagc   17

45

<210> 6
<211> 17
<212> DNA
<213> Artificial Sequence

5

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

10   <400> 6
cgtcgggtat agattta   17

<210> 7
15   <211> 17
<212> DNA
<213> Artificial Sequence

<220>
20   <223> Description of Artificial Sequence: fully
      synthesized primer

<400> 7
ccatgactca cttcctg   17
25

<210> 8
<211> 17
<212> DNA
30   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer
35
<400> 8
cgaatctgct acggatc   17

40   <210> 9
<211> 17
<212> DNA
<213> Artificial Sequence

45   <220>
<223> Description of Artificial Sequence: fully

synthesized primer

<400> 9
acacggtatc tctgagc   17

5

<210> 10
<211> 17
<212> DNA
10   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer
15

<400> 10
cacacgtaat cgtaatg   17

20   <210> 11
<211> 17
<212> DNA
<213> Artificial Sequence

25   <220>
<223> Description of Artificial Sequence: fully
      synthesized primer

<400> 11
30   ccatgcacca gctgcag   17

<210> 12
<211> 17
35   <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
40   synthesized primer

<400> 12
cgaatctgct acggatc   17

45

<210> 13

<211> 17
<212> DNA
<213> Artificial Sequence

5   <220>
<223> Description of Artificial Sequence: fully
       synthesized primer

<400> 13
10   atgcgcagac gttgagg   17

<210> 14
<211> 24
15   <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
20   synthesized primer

<400> 14
ggaccccagc gtccgtagcg cctc   24

25
<210> 15
<211> 33
<212> DNA
<213> Artificial Sequence
30
<220>
<223> Description of Artificial Sequence: fully
       synthesized primer

35   <400> 15
ggatcccagc tccgacagcg agatcttacc gtc   33

<210> 16
40   <211> 35
<212> DNA
<213> Artificial Sequence

<220>
45   <223> Description of Artificial Sequence: fully
       synthesized primer

<400> 16
ggatccagat ctgtccgccg tctccgacat tagcg   35

5

<210> 17
<211> 35
<212> DNA
<213> Artificial Sequence

10

<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

15   <400> 17
ggatccagat ctagcgaatc tgctacggat caata   35

<210> 18
20   <211> 17
<212> DNA
<213> Artificial Sequence

<220>
25   <223> Description of Artificial Sequence: fully
    synthesized primer

<400> 18
ggacatcacc atccagc   17

30

<210> 19
<211> 17
<212> DNA
35   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

40
<400> 19
catcgagcgt gccggag   17

45   <210> 20
<211> 27

<212> DNA
<213> Artificial Sequence

<220>
5   <223> Description of Artificial Sequence: fully
        synthesized primer

<400> 20
ggatgccatc gaagctggat ggtgatg   27
10

<210> 21
<211> 38
<212> DNA
15 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
        synthesized primer
20
<400> 21
ggatccagat ctaagtagag agggcccacc aggtagtc   38

25 <210> 22
<211> 37
<212> DNA
<213> Artificial Sequence

30 <220>
<223> Description of Artificial Sequence: fully
        synthesized primer

<400> 22
35 ggatccagat ctcccctttg ctagttctct cctcgcc   37

<210> 23
<211> 17
40 <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
45   synthesized primer

<400> 23
acgacctgga caagtac   17

5   <210> 24
<211> 17
<212> DNA
<213> Artificial Sequence

10 <220>
<223> Description of Artificial Sequence: fully
        synthesized primer

<400> 24
15 tcgccttcac gttgtcg   17
        ᵥ

<210> 25
<211> 27
20 <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
25   synthesized primer

<400> 25
cagctcgccg tgtacttgtc caggtcg   27

30
<210> 26
<211> 39
<212> DNA
<213> Artificial Sequence
35
<220>
<223> Description of Artificial Sequence: fully
        synthesized primer

40 <400> 26
ggatccagat ctaggttgcc atccagctgg atggcgatg   39

<210> 27
45 <211> 27
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
5   synthesized primer

<400> 27
cacccggaga gcgttgtgtg cggaagc   27

10

<210> 28
<211> 37
<212> DNA
<213> Artificial Sequence

15

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

20   <400> 28
ggatccagat ctccttcctg tggccgccgg ctctcct   37

<210> 29
25   <211> 17
<212> DNA
<213> Artificial Sequence

<220>
30   <223> Description of Artificial Sequence: fully
      synthesized primer

<400> 29
gtggcatcat cgtcagc   17

35

<210> 30
<211> 20
<212> DNA
40   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

45
<400> 30

cctcgcacag cgtcgagcag   20

<210> 31
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

<400> 31
ctgccctcgc acagcgtcga gcagaag   27

<210> 32
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

<400> 32
ggatccagat cttcggcgat tgttgatgga tcggagaag   39

<210> 33
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

<400> 33
ccatggccaa gaagggt   17

<210> 34
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
synthesized primer

5

<400> 34
cccttctcct tgatgtccac c   21

10   <210> 35
<211> 26
<212> DNA
<213> Artificial Sequence

15   <220>
<223> Description of Artificial Sequence: fully
synthesized primer

<400> 35
20   ccttcttggc catggcgccg aacgcc   26

<210> 36
<211> 39
25   <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
30   synthesized primer

<400> 36
ggatccagat ctcgaagtgg tacgccgcga taggctcat   39

35

<210> 37
<211> 34
<212> DNA
<213> Artificial Sequence
40
<220>
<223> Description of Artificial Sequence: fully
synthesized primer

45   <400> 37
ggatccagat ctcatgtccg tagatgtgca ccac   34

<210> 38
<211> 21
5   <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
10   synthesized primer

<400> 38
gccggcgaga gcatggcgat g   21

15

<210> 39
<211> 19
<212> DNA
<213> Artificial Sequence

20

<220>
<223> Description of Artificial Sequence: fully
synthesized primer

25   <400> 39
cgttgctgtg gtctgcttg   19

<210> 40
30   <211> 28
<212> DNA
<213> Artificial Sequence

<220>
35   <223> Description of Artificial Sequence: fully
synthesized primer

<400> 40
gccgacacca gggtgacctc caggacac   28

40

<210> 41
<211> 40
<212> DNA
45   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

5   <400> 41
   ggatccagat ctcatgctct cgccggcgaa ggtgttttgc   40

<210> 42
10 <211> 34
   <212> DNA
   <213> Artificial Sequence

   <220>
15 <223> Description of Artificial Sequence: fully
    synthesized primer

   <400> 42
   ggatccagat ctctcgccgg cgaaggtgtt ttgc   34
20

<210> 43
   <211> 19
   <212> DNA
25 <213> Artificial Sequence

   <220>
   <223> Description of Artificial Sequence: fully
    synthesized primer
30
   <400> 43
   ctacgactag ctagattcc   19

35 <210> 44
   <211> 18
   <212> DNA
   <213> Artificial Sequence

40 <220>
   <223> Description of Artificial Sequence: fully
    synthesized primer

   <400> 44
45 gcggattctg ttcttgcc   18

<210> 45
<211> 18
<212> DNA
5   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
       synthesized primer
10
<400> 45
gcggattctg ttcttccc   18

15   <210> 46
<211> 27
<212> DNA
<213> Artificial Sequence

20   <220>
<223> Description of Artificial Sequence: fully
       synthesized primer

<400> 46
25   acgcggatcc tggtgggcgc catcgcg   27

<210> 47
<211> 39
30   <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
35   synthesized primer

<400> 47
ggatccagat cttgggcgcc atcgcgcgtg gaatctagc   39

40
<210> 48
<211> 32
<212> DNA
<213> Artificial Sequence
45
<220>

<223> Description of Artificial Sequence: fully
    synthesized primer

<400> 48

5   ggatccagat ctcgtttgcg gtgttcgcgt tg   32

<210> 49
<211> 15
10 <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
15   synthesized primer

<400> 49
ccgctttagt tcagt   15

20
<210> 50
<211> 15
<212> DNA
<213> Artificial Sequence
25
<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

30 <400> 50
cccgcatttc atttc   15

<210> 51
35 <211> 27
<212> DNA
<213> Artificial Sequence

<220>
40 <223> Description of Artificial Sequence: fully
    synthesized primer

<400> 51
gtctgttgtc catgcgattc acgctac   27
45

<210> 52
<211> 43
<212> DNA
<213> Artificial Sequence

5

<220>
<223> Description of Artificial Sequence: fully
synthesized primer

10 <400> 52
ggatccagat ctcatgcgat tcacgctaca gccaaatgat cga   43

<210> 53
15 <211> 32
<212> DNA
<213> Artificial Sequence

<220>
20 <223> Description of Artificial Sequence: fully
synthesized primer

<400> 53
ggatccagat ctgcccggtc agacatgttt ac   32
25

<210> 54
<211> 33
<212> DNA
30 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
synthesized primer

35
<400> 54
ggatccagat ctgctcggcg cgttggtcgg tcg   33

40 <210> 55
<211> 18
<212> DNA
<213> Artificial Sequence

45 <220>
<223> Description of Artificial Sequence: fully

synthesized primer

<400> 55
atgagggttc ttgtagag   18

5

<210> 56
<211> 18
<212> DNA
10   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer
15

<400> 56
cccatcagtc cgctgttg   18

20   <210> 57
<211> 40
<212> DNA
<213> Artificial Sequence

25   <220>
<223> Description of Artificial Sequence: fully
      synthesized primer

<400> 57
30   ggatcctaga tctaaacaca gagactaaca gcttctctac   40

<210> 58
<211> 27
35   <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
40   synthesized primer

<400> 58
tgccgtgtga tcatattcta gagacac   27

45
<210> 59

<211> 27
<212> DNA
<213> Artificial Sequence

5   <220>
<223> Description of Artificial Sequence: fully
     synthesized primer

<400> 59
10 aaacacagag actaacagct tctctac   27

<210> 60
<211> 18
15 <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
20   synthesized primer

<400> 60
attctccagc gcaggtag   18

25
<210> 61
<211> 18
<212> DNA
<213> Artificial Sequence
30
<220>
<223> Description of Artificial Sequence: fully
     synthesized primer

35 <400> 61
tgccctggct cgtcgaag   18

<210> 62
40 <211> 27
<212> DNA
<213> Artificial Sequence

<220>
45 <223> Description of Artificial Sequence: fully
     synthesized primer

<400> 62
cctgccacga catctttgcc cggtcag   27

5
<210> 63
<211> 27
<212> DNA
<213> Artificial Sequence

10
<220>
<223> Description of Artificial Sequence: fully
    synthesized primer

15   <400> 63
tcgcacatca ggtgctcgtc cacgtac   27

<210> 64
20   <211> 38
<212> DNA
<213> Artificial Sequence

<220>
25   <223> Description of Artificial Sequence: fully
    synthesized primer

<400> 64
ggatcctaga tctctgcgct ggagaatgga tcggagag   38
30

<210> 65
<211> 19
<212> DNA
35   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
    synthesized primer
40
<400> 65
gaatcatcgg aataatggc   19

45   <210> 66
<211> 16

<212> DNA
<213> Artificial Sequence

<220>
5   <223> Description of Artificial Sequence: fully
        synthesized primer

<400> 66
taggagcggg agcatc   16
10

<210> 67
<211> 27
<212> DNA
15   <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
        synthesized primer
20
<400> 67
catcggcgga tgccatggac ctaccct   27

25   <210> 68
<211> 27
<212> DNA
<213> Artificial Sequence

30   <220>
<223> Description of Artificial Sequence: fully
        synthesized primer

<400> 68
35   gccaggagga gcacgacgag gaacacg   27

<210> 69
<211> 40
40   <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
45   synthesized primer

<400> 69
ggatcctaga tctgccagga ggagcacgac gaggaacacg   40

5   <210> 70
     <211> 19
     <212> DNA
     <213> Artificial Sequence

10   <220>
     <223> Description of Artificial Sequence: fully
          synthesized primer

     <400> 70
15   caaacgctgc tgcgctctc   19

     <210> 71
     <211> 16
20   <212> DNA
     <213> Artificial Sequence

     <220>
     <223> Description of Artificial Sequence: fully
25   synthesized primer

     <400> 71
     gagcgtggcg acgacg   16

30
     <210> 72
     <211> 27
     <212> DNA
     <213> Artificial Sequence

35
     <220>
     <223> Description of Artificial Sequence: fully
          synthesized primer

40   <400> 72
     gcgccatttt ctccaggttg ttctctc   27

     <210> 73
45   <211> 27
     <212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
5   synthesized primer

<400> 73
caccgatcaa aacgacaggc tcctctg   27

10

<210> 74
<211> 40
<212> DNA
<213> Artificial Sequence

15

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

20   <400> 74
ggatcctaga tctcaccgat caaaacgaca ggctcctctg   40

<210> 75
25 <211> 25
<212> DNA
<213> Artificial Sequence

<220>
30 <223> Description of Artificial Sequence: fully
      synthesized primer

<400> 75
caaggaggtg ttccacagcg tggcc   25

35

<210> 76
<211> 25
<212> DNA
40 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
      synthesized primer

45

<400> 76

tggcgttgcg cacgacggag tgcat   25

<210> 77
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
     synthesized primer

<400> 77
accgtgaagt tgtcgccggc cttcttg   27

<210> 78
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: fully
     synthesized primer

<400> 78
ggatcctaga tctacgagga tcgccgatag gccacctagg   40

<210> 79
<211> 2213
<212> DNA
<213> Zea mays

<400> 79
cctgtccttc ggcatttctg tagctactct cgacgatgag gtcttcgtcg cctcatcggt 60
aggcaaagtg tcctattgca cctctaagga ggtaggacta atcaactccc tagtgacacc 120
tatgtaggcc atctgagcag aggcaatgat ctttcactaa gactgattca gccaaagtta 180
actcttgaag tgctcctaaa caaataactt tggagcaaag tgaattttgg caattgttag 240
gtgaaggcag taaatgtgat ctgccctcac ctcctcagcc acttttatac tgaaaatgca 300
catgacgcga cacgggtcat ggaaattgtt cccgcgcagc gtcccaagtc cccctcgat 360
gatttaactt ctaggtcaac cgtttttact tcaaatgtat caccttcttc ttaaacaagc 420
tttaggaagt tgtttttcgg atctttggaa ttgggcctcc aagttataat ttttgcaatc 480
taagctcttt gcaaagaaaa caaactcata tcgcaatggg ctactttttgg ggaccttcta 540
tgttgaagat cacttgctta aacttttact ttgacacaag ctagtgtgtt tcaggaatat 600
ctctactgat gcacgaagcc aaccttcggt cgggaaggcg tgcagagaag cattgcacat 660

gaaaggtgaa agggtattaa ccaaagttga tagcttcgat gacagcaaag gagcttcaga 720
tacaagccaa aggaaaaggc gacgaaggcc taaatccgag cagccgaaga tggggaaaat 780
acgctactgc cctaacaaca tttgtaaaca gtgaggggta caattgtaat tatgtactaa 840
gtcggttcgt ctcccctata aatagatgaa cagtaacccg cataaattac attttgccag 900
gtgctacagc tttgtatagc tcaggctcca aaacacattc gtgctatctt gcactaagaa 960
gtcaatggta tgattgtaaa cttgttttct ataagagaaa tgaaattcta aggcacatga 1020
gatgagttct catatcttcg tcatgttttt atgtattcta gtcgattaca tccaaccttc 1080
gtccttgagt agttatccca aagacttaac acttcaagga tgaaggcttc tactttttaa 1140
cattgtgttg tcttgttttt tatttcattt agcaattaaa agcaagtgac taacacatgg 1200
ttaaacccaa gatccgaaaa gaggctaaaa ttgagcaaga atgaacaaaa gttggtaaga 1260
ggaacataaa ccaacctttc ttagcaacat tcttccaaaa aaagaagatc aaaacatgta 1320
cccttgtatt ttgtgaaaac tggatctcca aaattgccta caatggaagg tggctacgag 1380
aaacggttat aatcgaggag gtagagagaa ttttatgcta caaccttcac aggcggtttc 1440
cctaagaaac atccactcta aatgtctttg cacatacggt tcacttaaaa aaccgcaaat 1500
gcaaattgtt cattttcact ggaggttttt taagcgaacc gctagaggaa atctcatttg 1560
caccggcgat ccttaagaca tatcatgagc gaggttgcct tggaagccgg aagagttggt 1620
caatgaccta taaaaagcag aggacacagg agtgccctat tcaagcattg cctaaaaata 1680
gcaaaggcca aacgaccatt tcgtgtacat agcaaacggt gctcctctct ctcaagaaag 1740
gatatcttcg ggaacatcca tccatcccca atcccaaag gcgaggagag aactagcaaa 1800
ggggaaatgg ctgcttccac aaacaacact ctcagggtgc tgttcaccct aatggttgta 1860
tgcgccgcag tatgcacagc gaaaaggact gtagcaaagg caggagactt ggcgccagcc 1920
cctgctccgt taggagcagg aggcgccacc gcagccccag aaggtgcggc tagagccagc 1980
aggacgttcg acatatcgaa gttcggcgcg accagcgacg gcaagacgga ctcgacacag 2040
gttgcattgc attgcattgc attgcattgc atgttggcac ggtggtgtga ctgatgcact 2100
ggttcaatga tctatcaggc agtccaggac acgtggacgt cagcgtgcgg agcgatggga 2160
gacgcaacga tgctcatccc caagggcgac tacctggtgg gccctctcta ctt   2213

<210> 80
<211> 809
<212> DNA
<213> Zea mays

<400> 80
aaaaaaccca cgggttcacg ggtttgggta ctataggaac aaacccgtac caataaaccc 60
gtcgggtata gatttatgcc cattaacaaa cccatggata tgaaaattga tccaaacccg 120
taccctaata gggtaaaaac ccatcgggtt tcgggtttcg agtacccatt gtcatcttta 180
acaggaagtg agtcatgggc ctcttgtgcg tttgcgcttc tcgcttcatg gtccgtgact 240
ttccacgggt acacatatgg gccctaccat ggctctctta tcaactgggc ctcgaagcct 300
agctagttga tggcttgcat aattgcattg catggtctcc tctgctccgt ccgactgagc 360
gattcttccg gtaggggagc tgcagtgcag ctggtgcatg gcgatggatg gctgcgagtg 420
gtccaagaat ttctccccgg catgtcctct cctccagacc tccaccgatg cagcaggctc 480
ctggtagagc taactaaatc ggggaccccct tctcaagttt tcatcactat atatgcagca 540
gatacctaga agagcacgac cgagctagga gaagcgcgaa cgcgtgcatg cgcagacgtt 600
gaggtcgagg gacacggtat ctctgagctt catcggagag cgacccgcca ccgccacgct 660
tggccgcaag ccgagaagag tgccgggccg ggagaccgga cgattattga tccgtagcag 720

114

attcgctaat ggcggatacg gcggacatgg agcggatctt caagcggttc gacaccaacg 780
gcgacggtaa gatctcgctg tcggagctg   809

5   <210> 81
    <211> 910
    <212> DNA
    <213> Zea mays

10 <400> 81
    ccgtgacttt ccacgggtac acatatgggc cctaccatgg ctctcttatc aactgggcct 60
    cgaagcctag ttagttgatg gcttgcataa ttgcattgca taattgcgct tctccctacc 120
    atgtgcctgt ttgtttcggc ttctgacagc ttctggccac caaaagctgc tgcggactgc 180
    caaacgctct gcttttcagt cagcttctat aaaattcgtt ggggcaaaaa ccatccaaaa 240
15 tcaatataaa cacataatcg gttgagtcgt tgtaatagtt ggaatccgtc actttctaga 300
    tattgaaccc tatgaacaac tttatcttcc tccacacgta atcgtaatga tactcagatt 360
    ctttccacag ccaaattccc ccacagccaa attttcagaa aagctggtca gaaaaaagct 420
    gaaccaaaca ggcccatggt ctcctctgct ccgtccggct gagcgattct tccggtggga 480
    gagctgcagc tgttgcatgg cgatggatgg cagcgaggtg gtccaagaat ttctccccgg 540
20 catgtcctct cctccagacc tccaccgatg cagcaggctc ctggtagagc taactaaatc 600
    ggggacccct tctcaagttt tcatcactat atatgcagca gatacctaga agagcacgac 660
    cgagctagga gaagcgcgaa cgccgtgcat gcgcagacgt tgaggtcgag ggacacggta 720
    tctctgagct tcatcggaga gcgacccgcc accgccacgc ttggccgcaa gccgagaaga 780
    gtgccgggcc gggagaccgg acgattattg atccgtagca gattcgctaa tggcggagac 840
25 ggcggacatg gagcggatct tcaagcggtt cgacaccaac ggcgacggta agatctcgct 900
    gtcggagctg   910

    <210> 82
30 <211> 1511
    <212> DNA
    <213> Zea mays

    <400> 82
35 atcgtgtaag gtgatttagt tcatttgttg tgagggaagt gtggtgcttg gtggtctgtt 60
    ccacgtggtt cctttgctcg agttttcatg ttctcatcat tcttgccttt gtttgagagg 120
    cgaggttatt gtcttctcca ctggagctgg gcagattttg ggttgaacca tcgcgatgta 180
    gctagtgaac ctgtggtctt ttgacattaa ttaaggtagt gttcggttct ggagccagtt 240
    gggatggagt ggctccgttc gagagatttt ggggagttgg atggctcggt atttgaatat 300
40 aatttccctt tttagaacca ctctatcttg taaaggattg gcactcaggg ttttcttagc 360
    tcaaccgtca gtggaaatcg atttctgctc atggttgtct taactgaacc gccaatgaaa 420
    aacgattttc actagcggtt atcgtttacc tgcctatgaa aataattatt tctactggtc 480
    tctaacgctg gaggttctga aaaacgccag tgcaaataag tttcgaacca tctctataaa 540
    acttctttct actagtgaca tggaaccaat ccgaacaaca ttaaattgag agtgaagtgg 600
45 cttgatccaa ctatagtcca gaaatcaaac actgcctaga aggctgctgg gcacgaggac 660
    ttgaactcta aaaaagatgt ggtgctggtg ctcttcaaaa tatttgattg ttgttcagca 720

                                    115

ttttgttttt gtttttgtag gcgtagttcg atttacccat ttatatgatt cgctgtgata 780
caatatcata tgtaattaaa atcaactgac cccccgtttg gatcattgga attgaattcc 840
attctaataa tagtaattta gatatatatc aattaagcta attcagtttt ttgcaaaata 900
tatttgtata ttattattag caagatgtta gaaatattta tgtgctatat ttttactata 960

gaggggtgag acgaagagtg tcttgtaagt tacagagtag aaacaaattc tactaatgca 1020
taaaatcatt tctcatcctg cacccccatga atttgaaccc catgaatttg agataggctt 1080
atatctgaac tttgaaaagt ggtggaatgt caaatttcaa attaaataag ttaatttatt 1140
aggtgaattc caattccttt gaaacaaagg gatctaaacg tcccgtgaga aaatttgcat 1200
gtgcacaaaa gttcacaatt tgcatgctga cacacgcatc tctgggtccg tacgattggt 1260

aaaacttgat gaggttgcct ttgtctagca tccgcatcaa taggaccttt gaaacggtaa 1320
gagttggtca tcgagaacct gaaaaaaaac tagaggacag gagttcttta ttcaagcatg 1380
gcctcaaaat agcaaagtcc agacggtcat ttcgtgtaaa tagcagacgg tgctcctctg 1440
tctcttgcaa tcttccggaa catccatcga tctcccccca gcggcgagga gagccggcgg 1500
ccacaggaag g   1511

<210> 83
<211> 459
<212> DNA
<213> Zea mays

<400> 83
cgtatctagc gactacatgc tacaacatgc tcgatgtcat atacacctat acatgtcact 60
atggcgtatc atactttgtc attaaaatcc acatctaaga catgatccat gtacaactac 120
gataagatag gagtactagt taaatctctg ttgggcattg gaccagatca tgctcgtgct 180
gggctttcgg gcctcgtgtt ctctcaccaa ttatagtggg tagctagtaa atgcatgcat 240
ctatatatgg acatgtatgc atgctattag agtattagtt agaagcgtac cactgcacga 300
agagagaggt acgatcggga gggaaactct catggccata cacctatcat ctccttttcg 360
tgacatccta ctgtgtatat ataaccaaca acgatcatgt tagttccaca agcaaattaa 420
acctatcatc atcttctccg atccatcaac aatcgccga   459

<210> 84
<211> 1503
<212> DNA
<213> Zea mays

<400> 84
atcctccaag gtatcagcag tgggtccgga cccccatggg aaagtgctgg acccctgttt 60
atatggaccg gacctccagg taaggtccag gacctccacg ggcgcgaact gaaccccttg 120
gatgggtccc ggacccctct gtgtgggatc cgggccactc acaacaaggt cccgggattc 180
tgggacaaag aatacctgga ccttgttgaa gaccaagcga gggtccggag ccgacacgtg 240
ttcgggccat gcggtgtacg cttctgctct ccactcaggt ggagacccga tgctgccacg 300
tggcccacca ccgtgacgta agccagcggg cgaagcctga cgtaaggcct ctgggccaca 360
cggcctctgc attttattaca gataagccgc atcgcgtgtc cactccactg gcaggcgatg 420
tgccgcctca gaatttaatg agccttgtcc actccactgg caggcgatgt gccgcctcag 480